ABSTRACT OF THE DISCLOSURE

A method and apparatus for temporally allocating bits between frames in a [0054] coding system such that temporal fluctuations are smoothed out. Namely, a picture quality is monitored on a frame by frame basis. An average distortion measure is derived from previous picture frames and that average is compared to the distortion measure of a current frame, where the result is used to effect bit budget allocation for each frame in an input image sequence.